

of really valuable work that he accomplished in the twenty years of his attention to botanical subjects is little more than marvellous. Of course Mr. Wolle fell into some errors from which a scientific training would have delivered him, but, spite of these, the immense value of his contributions to the knowledge of our water plants can never be forgotten.

It may be of interest also to know that Mr. Wolle was the first patentee, in 1852, of machinery for making paper bags.

We are indebted to Mr. Eugene A. Rau for papers and memoranda from which the above facts are derived. We copy from the *Moravian* a brief word as to his character:

"Unvarying kindness was a distinguishing feature of our departed Brother's character, and his sincere urbanity endeared him to many in all classes in the community, which mourns the loss of a distinguished citizen, even as the Church will cherish his memory as that of a successful educator."

Another hybrid oak.—PLATE VIII.—Last fall an oak tree was found along the bluffs of the Kansas river opposite Manhattan, which cannot well be referred to any of the American species of *Quercus* and certainly not to any of the species native of Kansas. The bark and twig characters are those of that form of *Q. prinoides* Willd. known as *Q. Muhlenbergii* Engelm., which is the common oak of the upland woods in this vicinity. The leaves, however, are intermediate between that species and *Q. macrocarpa* Michx., which is also quite common here. Some have nearly the size and shape of the latter, while others closely resemble rather deeply lobed forms of *Q. prinoides*. But they are all pubescent beneath and have the coriaceous texture of *Q. prinoides*. The acorn is also intermediate between the two species mentioned, being much larger than that of *Q. prinoides*, and showing a tendency to be mossy fringed. The drawings were made from this specimen.

Another tree which is apparently the same form was found on the bluffs of the Blue river about three miles above Manhattan by Prof. Mason and the writer. This agrees with the first specimen except that the cups of the acorns are deeper, more turbinate at base and decidedly mossy fringed as in *Q. macrocarpa*.

These two specimens are, in the opinion of the writer, hybrid between *Q. macrocarpa* and *Q. prinoides*. The two supposed parents are abundant in this region and are the only members of the white oak section found in this part of the state.

Hybrids among the white oaks are not common. *Q. macrocarpa* hybridizes with *Q. alba*,¹ but I find no record of a hybrid between *Q. prinoides* and any other species although Vasey records one between *Q. alba* and *Q. Prinus*.²

Plate VIII shows the twig, acorn and two cups natural size, and leaves one-half natural size.—A. S. HITCHCOCK, *Kansas State Agricultural College, Manhattan*.

A graft hybrid.—The following example of graft hybrid came under my observation two or three years ago. The number of such cases is so small that it is perhaps worthy of description. The plant belonged to Mrs. Dixon, at present librarian of the University of Chicago. The following is her description of the method she used in grafting: "I took two strong healthy plants, one a pure white and one a pure red (single bloom geraniums) and grafted them together at the root in length sections using common grafting wax and binding with long strips of flannel. The first year there was little accomplished except to keep the plant alive. In the fall I planted it in the sunniest corner of the room with plenty of rich soil. It grew rapidly and soon flowered profusely. At first there were red flowers with blotches of white, sometimes one perfectly white petal and all of the others red. The second summer the two plants were fairly wedded into one life on conditions of absolute equality. The heads would show red and white in almost equal proportion. I remember one cluster with three white flowers, two mottled ones and the rest pure red. It lived for four years and grew to be such a bush that it had to be trained against the porch rail."

At the time I saw the plant the mixture of red and white was even more marked than the condition which Mrs. Dixon describes. One blossom had two red petals and the rest white, another had some pure red and the other mottled with white, etc. I could not discover that either plant seemed to have influenced the hybrid any more than the other one had. They were certainly fairly "wedded together."—HERBERT L. JONES, *Cambridge, Mass.*

¹Engelmann, Trans. St. L. Acad. Sci. III. 397. E. Hall, Amer. Ent. and Bot. 1870. 191.

²Ball. Torr. Bot. Club x. 25, 26.